## Resource Protection

## Linking Science and Education to Positive Changes in our Ocean

Karen Reyna and Irina Kogan Resource Protection Specialists



Walker's Creek in Tomales Bay

All of us who care about the Gulf of the Farallones National Marine Sanctuary want to see thriving populations of fish, marine mammals, and birds. We want to see pristine ocean habitat and water quality. However, sometimes there are challenges to accomplishing this level of protection. Therefore, we need to be resourceful and use every tool in the toolbox to ensure that these waters, its quality and the wildlife populations within are improving, not declining.

For answers to these challenges, Sanctuary staff turn to scientific studies focused on sanctuary resources. Staff also utilize our education programs, which are aimed at letting the public know how every person can contribute to the conservation of sanctuary waters. Essentially, staff are all here to make sure that people try to keep this ocean treasure healthy, clean and wild. But, we need to know how well we are doing. We need to ensure that the work we do can be measured with tangible outcomes that result in greater conservation of Sanctuary waters.

How? In the past year, Irina Kogan and Karen Reyna have joined the Gulf of the Farallones Sanctuary staff as the new Resource Protection Team. The team works under the direction of the Sanctuary Manager Maria Brown. The team's main purpose is to focus on preserving and improving sanctuary waters by making science-based decisions on how best to protect all sanctuary resources. As Resource Protection Specialists, it is our job to work with the public and other federal, state and local agencies to make sure that activities that take place in sanctuary waters do not harm wildlife or water quality. If we find that our resources have been harmed, then we work to halt and reverse it.

Some of these projects include: cleaning up Tomales Bay and Bolinas Lagoon; planning emergency response protocols for vessel spills; ensuring that coastal development does not harm sanctuary resources; enforcing regulations when there has been a violation; and permitting research within sanctuary waters.



Kayakers enjoying the day on Walker's Creek in Tomales Bay

Tomales Bay - Recently Tomales Bay was listed as an impaired body of water because it has an unacceptable amount of pathogen contamination, which comes directly from fecal waste. This listing came from the standards set by the Clean Water Act. Human and animal waste are the main cause of pathogen contamination. The sources are varied: faulty septic systems, agricultural runoff (dairies & ranches), municipal runoff, wildlife, and recreational users (boaters, kayakers, swimmers, pets, etc.).

The Resource Protection Team is working with several federal, state and local agencies to target these sources and minimize the amount of waste that flows into Tomales Bay. In addition, we are targeting our



















## RESOURCE PROTECTION

outreach efforts to recreational users who are on or in the water, particularly the boating community. It is our goal to educate boaters to be part of the solution by maintaining their marine sanitation devices, and using restrooms and waste bags to dispose of waste, instead of using the bay. In order to do this, the resource protection staff work hand in hand with education and outreach staff to enlighten the public to these issues. This project is a good example of how on the ground resource protection directly links with science and education. Scientific research identified the problem, the Resource Protection Team is determining how best to fix the problem and the Education Team is delivering the right message to the right people.

Bolinas Lagoon – We are working to make Bolinas Lagoon a pristine environment. Starting this summer and continuing over the next couple of years, there will be efforts to clean up the Lagoon. In 2005, Caltrans plans to clean out the culverts that drain into and out of the lagoon. In addition, a plan is being developed to



Bolinas Lagoon

remove an old abandoned water pipeline from the south end of the Lagoon. Future projects to restore Bolinas Lagoon include removing the telephone poles that line the Lagoon next

to Highway 1, and removing the abandoned dredge that has been sitting in the middle of the lagoon since before the sanctuary was designated. As Resource Protection Specialists, it is our job to review the proposed actions, ensure that a thorough assessment is conducted and make sure that these activities improve the quality of Bolinas Lagoon, while ensuring that there is minimum disturbance to the wildlife that lives and breeds in the lagoon.

Emergency Response – The sanctuary is a conduit for almost all vessels that travel into and out of San Francisco Bay. This includes commercial shipping vessels and recreational boaters who use the Sanctuary to sail, dive or fish. Thus, one of the biggest threats to sanctuary waters is a spill of hazardous materials from a vessel, such as oil or fuel. Sanctuary staff need to be fully prepared to respond to these types of incidents. A fast and appropriate response to vessel spills can



Common Murre with oil on its feathers

prevent unnecessary harm to wildlife. Therefore, the most critical part of emergency response to vessel spills is having a good plan in place so that an emergency does not turn into a crisis.

The Resource

Protection Team is updating our response plan and working with other agencies to ensure a coordinated and timely response.

Coastal Development – Now that the Gulf of the Farallones is managing the northern part of the Monterey Bay National Marine Sanctuary (starting at the San Mateo/Santa Cruz County Line), it is our job to protect the San Mateo Coast. Since the San Mateo Coast is one of the most populated areas that touches sanctuary waters, coastal development is a major threat. Resource Protection staff are working on moderating the proliferation of seawalls and rip-rap. Building seawalls to stabilize cliffs can diminish the amount of sand available to local beaches and reduces the public's recreational access to the sanctuary. Similarly, rip rap can cover large portions of beach, negatively impacting the wildlife dependent on these beach and intertidal habitats. The Resource Protection Team is working with land owners and government agencies to explore alternatives to armoring in order to retain the pristine character of the San Mateo shoreline.

For more information about the Resource Protection Action Plans for Gulf of the Farallones, please visit www.sanctuaries.nos.noaa.gov/jointplan.



Rodeo Beach in Marin County











